Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.(Currently amended) A fuel vapor pressure monitoring device monitoring a pressure increase in a purge vent between a fuel tank and an intake passage of an engine, in a sealed state, the device comprising:

a sensor which detects a pressure in the purge vent; and

a programmable controller programmed to:

~~calculate a pressure variation in the purge vent;~~

repeatedly calculate a pressure change rate in the purge vent in the sealed state at predetermined time intervals;

update a minimum value for the pressure change rate,

calculate a difference of the minimum value and the pressure change rate,

calculate an error equivalence amount ~~from the pressure variation in the purge vent~~ based on a time integral of the difference, the error equivalence amount corresponding to an error amount in the pressure in the purge vent in the sealed state due to sloshing in the fuel tank; and

calculate a corrected pressure which corresponds to a pressure when sloshing does not occur, from the pressure in the purge vent in the sealed state and the error equivalence amount.

2.(Original) The monitoring device as defined in Claim 1, wherein the pressure increase in the purge vent in the sealed state is a pressure increase in which a pressure change rate decreases.

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3.(Original) The monitoring device as defined in Claim 1, wherein the purge vent comprises a first passage connected to the fuel tank, a canister connected to the first passage, the canister comprising a filter adsorbing fuel vapor and a vent hole opening to the atmosphere, a second passage connecting the canister with the intake passage, a drain cut valve which can close the vent hole and a purge control valve which can close the second passage, and the controller is further programmed to seal the purge vent by closing the drain cut valve and the purge control valve.

4.(Cancelled)

5.(Currently amended) The monitoring device as defined in ~~Claim 4~~ Claim 1, wherein the controller is further programmed to regulate the pressure in the purge vent to a first negative pressure using a negative intake pressure of the engine, and determine the presence of a fuel vapor leak in the purge passage using the corrected pressure when a leak-down period has elapsed after regulating the pressure in the purge vent to the first negative pressure.

6.(Original) The monitoring device as defined in Claim 5, wherein the controller is further programmed to determine that the leak-down period has elapsed when the absolute value of a negative pressure in the purge vent equals a value calculated by subtracting the time integral and a fixed pressure from the absolute value of the first negative pressure.

7.(Original) The monitoring device as defined in Claim 6, wherein the fixed pressure is set in a range from 0.5 kilopascals to 2.0 kilopascals.

8.(Original) The monitoring device as defined in Claim 5, wherein the controller is further programmed not to determine the presence of a fuel vapor leak in the purge passage when the time integral exceeds a fixed amount.

9.(Original) The monitoring device as defined in Claim 5, wherein the controller is further programmed to calculate a leak diagnosis index by dividing a difference of the corrected pressure when the leak-down period has elapsed and the first negative pressure by the leak-down period, and determine that there is a fuel vapor leak when the leak diagnosis index is greater than a fixed value.

10.(Currently Amended) ~~The monitoring device as defined in Claim 1,~~ A fuel vapor pressure monitoring device monitoring a pressure increase in a purge vent between a fuel tank and an intake passage of an engine, in a sealed state, the device comprising:

a sensor which detects a pressure in the purge vent; and

a programmable controller programmed to:

calculate a pressure variation in the purge vent;

calculate an error equivalence amount from the pressure variation in the purge vent, the error equivalence amount corresponding to an error amount in the pressure in the purge vent in the sealed state due to sloshing in the fuel tank;

calculate a corrected pressure which corresponds to a pressure when sloshing does not occur, from the pressure in the purge vent in the sealed state and the error equivalence amount;

~~wherein the controller is further programmed to~~ seal the purge vent in a state where the pressure in the purge vent is equal to atmospheric pressure[[,]];

determine whether or not a fixed vapor monitoring period has elapsed in a sealed state[[,]]; and

calculate the corrected pressure when the fixed vapor monitoring period has elapsed, as a vapor monitoring period temperature increase correction amount expressing a pressure variation resulting from a temperature variation during the vapor monitoring period.

11.(Original) The monitoring device as defined in Claim 10, wherein the controller is further programmed to regulate the pressure in the purge vent other than during the vapor monitoring period to a first negative pressure using a negative intake pressure of the engine, seal the purge vent in a state where the pressure in the purge vent is equal to the first negative pressure, count up a leak-down period which is a required time for the pressure in the purge vent to increase from the first negative pressure to a fixed second negative pressure, calculate a differential pressure correction value by correcting a differential pressure of the first

negative pressure and the second negative pressure based on the vapor monitoring period temperature increase correction amount, the vapor monitoring period and the leak-down period, and determine the presence of a fuel vapor leak in the purge vent based on a leak diagnosis index calculated by dividing the differential pressure correction value by the leak-down period.

12.(Original) The monitoring device as defined in Claim 11, wherein the controller is further programmed to set the leak-down period before the vapor monitoring period.

13.(Original) The monitoring device as defined in Claim 11, wherein the controller is further programmed to calculate a leak-down period temperature increase correction amount by multiplying the ratio of the leak-down period and the vapor monitoring period by the vapor monitoring period temperature increase correction amount, and calculate the differential pressure correction value by correcting the differential pressure of the first negative pressure and the second negative pressure by the leak-down period temperature increase correction amount.

14.(Original) The monitoring device as defined in Claim 11, wherein the controller is further programmed to determine that there is a fuel vapor leak when the leak diagnosis index is greater than a fixed value.

15.(Original) The monitoring device as defined in Claim 1, wherein the controller is further programmed to apply a correction for a quantization error resulting from quantizing the pressure detected by the sensor when calculating the error equivalence amount from the pressure variation in the purge vent.

16.(Currently amended) A fuel vapor pressure monitoring device monitoring a pressure increase in a purge vent between a fuel tank and an intake passage of an engine, in a sealed state, the device comprising:

means for determining a pressure in the purge vent;

~~means for calculating a pressure variation in the purge vent;~~

means for repeatedly calculating a pressure change rate in the purge vent in the sealed state at predetermined time intervals;

means for updating a minimum value for the pressure change rate,

means for calculating a difference of the minimum value and the pressure change rate,

means for calculating an error equivalence amount ~~from the pressure variation in the purge vent~~ based on a time integral of the difference, the error equivalence amount corresponding to an error amount in the pressure in the purge vent in the sealed state due to sloshing in the fuel tank; and

means for calculating a corrected pressure which corresponds to a pressure when sloshing does not occur, from the pressure in the purge vent in the sealed state and the error equivalence amount.

17.(Currently amended) A fuel vapor pressure monitoring method monitoring a pressure increase in a purge vent between a fuel tank and an intake passage of an engine, in a sealed state, the method comprising:

determining a pressure in the purge vent;

~~calculating a pressure variation in the purge vent;~~

repeatedly calculating a pressure change rate in the purge vent in the sealed state at predetermined time intervals;

updating a minimum value for the pressure change rate,

calculating a difference of the minimum value and the pressure change rate,

calculating an error equivalence amount ~~from the pressure variation in the purge vent~~ based on a time integral of the difference, the error equivalence amount corresponding to an error amount in the pressure in the purge vent in the sealed state due to sloshing in the fuel tank; and

calculating a corrected pressure which corresponds to a pressure when sloshing does not occur, from the pressure in the purge vent in the sealed state and the error equivalence amount.